

I CLAIM AS MY INVENTION:

1. A method for characterizing a location at a subject, comprising the steps

of:

- (a) generating a volume dataset of a subject;
- (b) generating an image from said volume dataset;
- (c) marking a location in said image with a mark; and
- (d) based on the mark in said image, adjusting a location characterizing unit relative to said subject so that said location characterizing unit characterizes a location in said subject substantially corresponding to the location in the image identified by said mark.

2. A method as claimed in claim 1 wherein step (a) comprises generating said volume dataset with an X-ray system.

3. A method as claimed in claim 2 comprising moving said X-ray system with at least one drive to generate said volume dataset.

4. A method as claimed in claim 3 comprising moving said X-ray system with at least one electric motor, as said drive, to generate said volume dataset.

5. A method as claimed in claim 3 comprising automatically moving said X-ray system with at least one drive to generate said volume dataset.

6. A method as claimed in claim 1 wherein step (b) comprises generating said image from said volume dataset using a computer, and wherein step (a) comprises generating said volume dataset using said computer.

7. A method as claimed in claim 1 wherein step (b) comprises selecting said image that is generated from the group consisting of two-dimensional images three-dimensional images.

8. A method as claimed in claim 1 comprising the additional step of displaying said image on a viewing device.

9. A method as claimed in claim 1 wherein step (c) comprising marking said location in said image with a marking device selected from the group consisting of a computer mouse, a track ball, a joystick, a light pen, and a touch screen.

10. A method as claimed in claim 1 wherein step (d) comprises adjusting said location characterizing unit with a drive.

11. A method as claimed in claim 10 comprising adjusting said location characterizing unit with an electric motor, as said drive.

12. A method as claimed in claim 10 comprising using said drive, automatically aligning the location characterized by said location characterizing unit with said mark.

13. A method as claimed in claim 1 wherein step (d) comprises characterizing said location at said subject with an optical sighting device, as said location characterizing unit.

14. A method as claimed in claim 13 comprising emitting an optical beam from said optical sighting device to characterize said location at said subject.

15. A method as claimed in claim 14 comprising emitting a laser beam from said optical sighting device to characterize said location.

16. A method as claimed in claim 1 wherein step (a) comprises generating said volume dataset with a C-arm X-ray imaging system.

17. A method as claimed in claim 16 comprising moving said C-arm X-ray imaging system with respect to at least one of an angulation axis and an orbital axis to generate said volume dataset.

18. A method as claimed in claim 16 comprising mounting said location characterizing unit at said C-arm X-ray imaging system.

19. A method as claimed in claim 18 wherein step (d) comprises moving said C-arm X-ray imaging system, with said location characterizing unit mounted thereon, to adjust said location characterizing unit.

20. An apparatus allowing a location at an subject to be characterized,
comprising:

an arrangement for generating a volume dataset of a subject;

an arrangement for generating an image from said volume dataset;

a marking arrangement for setting a mark in said image which identifies a location in said subject represented in said image; and

a location characterizing unit which interacts with said marking arrangement to characterize a location at said subject substantially corresponding to the location represented in said image identified by said mark.

21. An apparatus as claimed in claim 20, wherein said arrangement for generating a volume dataset is an X-ray system.

22. An apparatus as claimed in claim 20 wherein said arrangement for generating a volume dataset includes data-generating components, and at least one drive for moving said data-generating components.

23. An apparatus as claimed in claim 22 wherein said drive is an electric motor.

24. An apparatus as claimed in claim 22 wherein said data-generating components are automatically moved by said drive.

25. An apparatus as claimed in claim 20 wherein said arrangement for generating an image from the volume dataset is a computer, and wherein said arrangement for generating a volume dataset also comprises said computer.

26. An apparatus as claimed in claim 20 wherein said arrangement for generating an image from said volume dataset generates said image from the group consisting of two-dimensional images and three-dimensional images.

27. An apparatus as claimed in claim 20 wherein said arrangement for generating an image from the volume dataset includes a viewing device on which said image is displayed.

28. An apparatus as claimed in claim 20 wherein said marking arrangement comprises a marking device selected from the group consisting of a computer mouse, a track ball, a joystick, a light pen, and a touch screen.

29. An apparatus as claimed in claim 20 comprising a drive connected to said location characterizing unit for moving said location characterizing unit.

30. An apparatus as claimed in claim 29 wherein said drive is an electric motor.

31. An apparatus as claimed in claim 29 wherein said drive automatically aligns said location characterizing unit to characterize said location substantially corresponding to the location marked in the image.

32. An apparatus as claimed in claim 20 wherein said arrangement for characterizing a location is an optical sighting device.

33. An apparatus as claimed in claim 32 wherein said optical sighting device emits an optical beam to characterize said location at said subject.

34. An apparatus as claimed in claim 33 wherein said optical sighting device is a lower sighting device which emits a laser beam.

35. An apparatus as claimed in claim 20 wherein said arrangement for generating a volume dataset comprises data-generating components mounted on a C-arm.

36. An apparatus as claimed in claim 35 wherein said C-arm is movable relative to at least one of an angulation axis and an orbital axis to generate said volume dataset.

37. An apparatus as claimed in claim 35 wherein said location characterizing unit is mounted at said C-arm.

38. An apparatus as claimed in claim 37 wherein said C-arm is automatically moved, together with said location characterizing unit mounted thereon, to adjust said location characterizing unit.

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